

ABSTRACT

A system for butt welding expansion joint rails with an electroslag welding system.

The electroslag welding system for butt welding the expansion joint rails comprises a control system. The method for butt welding the two expansion joint rails with the electroslag

5 welding system comprises defining a weld cavity with a first expansion joint rail, a second

expansion joint rail, a plurality of gland shoes, and a pair of butt shoes. The electroslag

welding system can also be adapted to weld a expansion joint rail to a support beam. The

method for welding the expansion joint rail to the support beam comprising placing the

expansion joint rail on a horizontal axis, placing the support beam on a vertical axis and

10 clamping a modular component system to the expansion joint rail.